Amendments to the Specification:

Please replace the paragraph at page 33, lines 11-19, with the following paragraph:

"Indentations (or protuberances) may also be placed along the track at the writing positions as illustrated in FIG. 8 by the indentations (or protuberances) ~~815 and~~ 825. In the present illustration, indentations (or protuberances) ~~815,~~ 825 are placed in close proximity to the magnetic film 10, to fix the placement of fringing fields 865, 870, 875 that are used to write to the magnetic film 10. When an appropriate current is applied to track 805, the fringing fields 865 and 870 (for example) move to indentions ~~815 and~~ 820, allowing precision placement of the fringing field. In a further embodiment, the writing device may be made of a combination of different ferromagnetic or ferrimagnetic materials with indentations or protuberances."

Please replace the paragraph at page 25, lines 11-16, with the following paragraph:

"A current 545 is applied to track 540, moving the fringing field 565 within the write region 505. The tip of the current 545 shows that the current is flowing out of FIG. 5D, 5E, 5F. The magnetic fringe fields 560 and 565 write to the magnetic film 10 (block 450), changing the direction of the magnetization of data bit 510 to point in the right direction. Currents 515 and 545 are then applied to tracks 520 and 540, respectively, and the domains are moved away from the data bit 510 in the positive direction (block ~~435 of FIG. 4~~ 455). The domains are then returned to their original position (block

435)."

Please replace the paragraph at page 37, lines 25-30, with the following paragraph:

"Thus, the resistance of the magnetic tunnel junction will be low and the current 1050 will be large, as illustrated by blocks 920, 940~~ block 940~~ in FIG. 9. By contrast, in FIG. 10B, the magnetization of the data bit 45 is directed along the rightmost direction and is anti-parallel to that of the magnetic domain in the upper track so the resistance of the magnetic tunnel junction will be high and the current 1060 will be small. Thus, as illustrated by ~~block~~ blocks 920, 925 in FIG. 9, the data bit is determined to be a "1"."

Please replace the paragraph at page 38, lines 26 through page 39, line-2, with the following paragraph:

"If necessary, for larger read signals, the resistance of the MTJ formed from the magnetic domain 1025 in the upper track 25 and the magnetic data storage bit 45 can first be read by passing the current 1050 through this MTJ. Then, a current can be passed along the upper track to move the fringing fields 1020, 1030 of the domain walls in this track by one position, to magnetic domain 1035. Thus, the direction of the magnetic moment in the track will be changed from being left, as shown in FIG. 10A, to being right."